CLAIMS

1.   An electronic device including a network interface for participating in a network connection with a second device via a network connection carried over physical link that
5   includes equipment for terminating said connection if said connection remains idle according a predefined time-out criteria, said device operable to determine said predefined time-out criteria.

2.   The electronic device of claim 1 wherein said electronic device is further operable to send keep-alive signals according to said determined criteria in order to reduce dropped
10   connections by said equipment and reducing overall traffic carried over said link.

3.   The device according to claim 2 wherein said connection is an HTTP web-page being requested by said first electronic device of said second electronic device and said keep-alive signal is a no-op signal.

4.   The electronic device of claim 1 wherein said equipment is a NAT router.

15   5.   The electronic device of claim 1 wherein said criteria is a predefined time period.

6.   The electronic device of claim 5 wherein said device determines said predefined time period by:

        establishing said connection with an initial default time period;

        sending a keep-alive signal to said second device once during said time period;

20   increasing said time period if said time period does not cause said connection to be dropped then repeating said sending step; and

        maintaining a last-known good time period if said time period does cause said connection to be dropped and then reestablishing said connection and returning to said sending step;

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during which said device sends keep alive signals to said second electronic device, and varying said time period sending keep-alive signals over said connection during said time period for each iteration until said time period causes said equipment to terminate said connection.

5   7.   The device according to claim 6 wherein said device is a client, said second device is a web-server and at least a portion of said link includes the Internet.

8.   The device according to claim 7 wherein said client is battery operated and said time periods are increased more quickly as said battery life is depleted to thereby reduce battery consumption while determining said predefined time period.

10   9.   The device according to claim 8 wherein said client is a wireless device and at least a portion of said link includes a wireless connection from said wireless device to the Internet.

10.   A method of maintaining a network connection comprising the steps of:

loading a timeout criteria into a first electronic device of an initial default value;

establishing a connection from said first electronic device to a second electronic
15   device via a physical link that includes equipment for terminating said connection if said connection remains idle for a predefined timeout period;

sending keep-alive signals from one said electronic device to the other said electronic device via said equipment according to said timeout criteria;

increasing said timeout criteria and repeating said sending step; and,

20   repeating said increasing step until said connection is terminated by said equipment and thereafter performing said sending step using a known good timeout criteria.

11.   The method according to claim 10 wherein said at least one least known timeout criteria is a last-known good timeout criteria.

12. The method according to claim 10 wherein said at least one least known timeout criteria is determined by iteratively decreasing said timeout criteria until said connection is no longer terminated.

13. The method according to claim 10 wherein said connection is an HTTP web-page being requested by said first electronic device of said second electronic device and said keep-alive signal is a no-op signal.

14. The method according to claim 10 wherein said equipment is a NAT router.

15. The method according to claim 10 wherein said first device is a client, said second device is a web-server and at least a portion of said link includes the Internet.

16. The method according to claim 10 wherein said client is battery operated and said increasing step is based on larger intervals when said battery life is approaching depletion.

17. The method according to claim 16 wherein said client is a wireless device and at least a portion of said link includes a wireless connection from said wireless device to the Internet.

18. A computer-readable storage medium containing a set of instructions for an electronic device the set of instructions comprising the steps of:

loading a timeout criteria into said electronic device of an initial default value;

establishing a connection from said electronic device to a second electronic device via a physical link that includes equipment for terminating said connection if said connection remains idle for a predefined timeout period;

sending keep-alive signals from said electronic device to said second electronic device according to said timeout criteria;

increasing said timeout criteria and repeating said sending step; and,

repeating said increasing step until said connection is terminated by said equipment and thereafter performing said sending step using a known good timeout criteria.